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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|------------------------------|-------------|----------------------|---------------------|------------------|
| 09/941,383 | 08/28/2001 | Dana C. Bookbinder | SP01-243 / 9272-7 | 6010 |
| 20792 | 7590 | 09/23/2004 | EXAMINER | |
| MYERS BIGEL SIBLEY & SAJOVEC | | | HOFFMANN, JOHN M | |
| PO BOX 37428 | | | | |
| RALEIGH, NC 27627 | | | ART UNIT | PAPER NUMBER |
| | | | 1731 | |

DATE MAILED: 09/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|------------------------|---------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/941,383 | BOOKBINDER ET AL. |
| | Examiner | Art Unit |
| | John Hoffmann | 1731 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 09 September 2004.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-26 and 29-48 is/are pending in the application.
 4a) Of the above claim(s) 13-26, 29-37 and 44-46 is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-12, 38-43, 47 and 48 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 15 January 2003 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/9/04 has been entered.

Claims 13-26, 29-37, and 44-46 remain withdrawn

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: There is no mention of any "exit opening" in the specification. (see claim 1 for instance) Claims are to be interpreted in light of the specification. One cannot interpret that which is not described in the specification.

Likewise there is no mention of the "first surface" and the "second surface" of the top plate.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12, 38-43 and 47-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2000-44269 (or Koaizawa 6543257) in view of Drouart 5931984, Kaiser 4030901, Ryoji JP 02212325 (Applicant's submitted abstract thereof), Gilbreath 6447017, Haney 4347069 and Collins 5408865.

Gilbreath, Haney and Collins are cited as evidence that o-rings and washers are equivalent sealing devices. See col. 5, lines 37-51; col. 1, lines 25-30; and col. 9, lines 1-6 of each respective reference.

Drouart at figure 4, feature 7; Kaiser, at figure 2, feature 27; and Ryoji features 17 and 18, show known sealing devices for optical fiber preform furnaces.

The invention as claimed is known as per Koaizawa figure 1, and cols. 3-4. However at col. 4, lines 50-62 Koaizawa discloses an o-ring rather than the claimed washer. In view of the 6 secondary references, it would have been obvious to place a sealing washer over the Koaizawa plate since such is a known equivalent to an o-ring seal.

The rest of the claim limitations are as follows in figure 1 of Koaizawa: 2 is the muffle tube; 31 is the top plate; 7-8 is the heating device; the arrow at 9 represents the process gas supply; 41 is the handle; and feature 5 is the flow shield. It is deemed that 5 would function to restrict flow to the process gas from the first end to the second end, at least when there is no preform, or when the preform is completely sintered. As shown in figure 1 of the reference, the consolidated preform is as narrow as the handle.

Alternatively, Koaizawa teaches to have the "same" furnace as figure 1 with the shield

of figures 3-4. See col. 19, line 28. In other words: altering the known figure 1 apparatus to include the shield 28 of figures 3-4.

Claims 2, 5, 11-12, 38, 41-43 are clearly met.

Claim 3: col. 24, lines 60-62 indicates that the means-cum-insulating means (of which 28 is one) is between 5-20 mm.

Claim 6 it is deemed that the shield is substantially coupled to the coupling device 5, because the only way to remove the shield is by moving it straight up.

Claim 9: see col 22, lines 18-19.

Claim 10: see col 15, lines 66-67.

Claims 39-40: see figure 20.

Claim 43: again looking at figure 11: 2 is the tubular muffle. 41 is the top plate with a passage. 3 is the solid flow restrictor positioned over the passage 44. As to the passage having a hole with a second dimension: the Koaizawa passage is a hole each has at least two dimensions which may or may not have the same value: the length is one, the width/diameter is another.

Claim 47 is substantially the same as the other claims. However, claim 47 also requires a plurality of washers. IT would have been obvious to use multiple washers to have a multiplied sealing effect. Mere duplication of parts is usually not a patentable improvement. Such is known as per Drouart and Ryoji.

Claim 7: see figure 10.

Claim 4, there is no indication as to what the prior art shield's thickness is. It would have been obvious to have the shield as thick as necessary to prevent gas flow, and yet strong enough to withstand the hot environment.

Claim 8 – see how claim 7 is met above. There is no indication of the spacing. It would have been obvious to make the furnace/preform as large or as small as desired – depending upon how much fiber is desired.

Claim 48 is met for the reasons give above.

Response to Arguments

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

The arguments regarding the written description requirement are not understood. The objection to the specification is not based on the written description requirement – thus the case law cited is not very germane. See the objection above for the requirement that is not complied with.

Conclusion

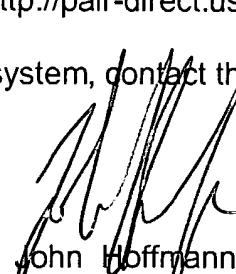
Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

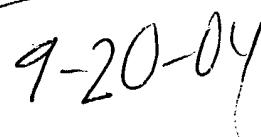
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is (571) 272 1191. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


John Hoffmann


9-20-04

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Primary Examiner
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jmh